



Mike DeWine, Governor
Jon Husted, Lt. Governor
Laurie A. Stevenson, Director

January 28, 2021

Limited Environmental Review and Finding of No Significant Impact

**City of Columbus – Franklin County
Brimfield Area Sanitary Sewer Repair
Loan number: CS390274-0291**

The attached Limited Environmental Review (LER) is for a sanitary sewer replacement project in Columbus which the Ohio Environmental Protection Agency intends to finance through its Water Pollution Control Loan Fund (WPCLF) below-market interest rate revolving loan program. The LER describes the project, its costs, and expected environmental benefits. Making available this LER fulfills Ohio EPA's environmental review and public notice requirements for this loan program.

Ohio EPA analyzes environmental effects of proposed projects as part of its WPCLF program review and approval process. We have concluded that the proposed project should not result in significant adverse environmental impacts. This project's relatively narrow scope and lack of environmental impacts qualifies it for the LER rather than a more comprehensive Environmental Assessment. More information can be obtained by calling or writing the person named at the end of the attached LER

Upon issuance of this Finding of No Significant Impact (FNSI) determination, award of funds may proceed without further environmental review or public comment unless new information shows that environmental conditions of the proposed project have changed significantly.

Sincerely,

Jonathan Bernstein

Jonathan Bernstein, Assistant Chief
Division of Environmental and Financial Assistance

Attachment

LIMITED ENVIRONMENTAL REVIEW

Project Identification

Name: Columbus – Brimfield Area Sanitary Sewer Repair

Applicant: City of Columbus
910 Dublin Road
Columbus, OH 43215

Loan number: CS390274-0291

Project Summary

The City of Columbus in Franklin County has requested \$1,041,000 from the Water Pollution Control Loan Fund (WPCLF) for improvements to the existing sanitary sewer system in the Brimfield area. The project includes approximately 353 linear feet of existing 8- to 10-inch sanitary sewer, manholes, and bedding to be removed and replaced to eliminate two major sags. The major sags resulted from poor soil condition and have caused water-in-basement occurrences.

History and Existing Conditions

Sanitary sewer in the Brimfield area is in need of repair. Sections of an existing 10-inch mainline and 8-inch sanitary sewer system have settled due to weak organic soils beneath the sewer. These soft soils offer very little support to the sewer and over time have caused settlement where solids collect. This settlement has created major sags that hold standing water and cause water-in-basement (WIB) occurrences. These WIB events can have sanitary sewer mixed with storm water. The sags require Columbus to perform a weekly Essential Preventative Maintenance (EPM) operation to flush the sewer and restore flow. The city's EPM annual operational cost of an estimated \$15,000 will be eliminated once the proposed sanitary sewer system improvements are constructed.

Project Description

The project area is generally bounded by Brimfield Road to the south, Beechcroft Road to the east, Tamarack Boulevard to the west, and Forest Village Lane to the north. The project site is located in a residential neighborhood. On the north side of the project site are apartment buildings belonging to the Forest Park Village apartment complex. On the south side are single family residential properties.

Sanitary sewer system improvements within the Brimfield project area will include replacement of failing sanitary sewer pipe and associated sanitary structures. Approximately 353 linear feet of existing 8- to 10-inch sanitary sewer, manholes, and bedding will be removed and replaced. The sanitary sewer pipe and manholes will be supported by helical anchors drilled deep into the soil.

Helical anchors consist of one or more helix shaped bearing plates attached to a central shaft. The shafts are drilled into the ground by a torque motor. The goal of drilling the anchors is to hit a certain torque on the shaft as that in conjunction with the bearing capacity of the plates themselves supply the overall capacity of the anchors. The weak soils in the area will not supply the proper torque on the anchors; therefore, the anchors will pass through the weak soils and bear on the firm clays beneath. The sewer will then be placed within a grade beam that spans anchors.

Helical anchors are the chosen design for this project since installation can be accomplished with relatively light equipment and will cause the least disturbance to adjacent residences. Since the anchors are simply drilled into the ground, impact on the surrounding buildings and homes will be minimal during installation. Construction access is from Beechcroft Road and results in little impact to the apartment complex roads and parking lots. The construction footprint for this project will remain within the confines of the existing sanitary sewer system, thereby minimizing effects on environmental resources. The contractor is responsible for best management practices to control erosion and sedimentation and minimize the creation of dust during construction.

Maps of the project location are provided in the exhibits below.

Implementation

Project Costs

Columbus plans to borrow \$1,041,000 from the WPCLF. During the 20-year loan period, Columbus will save approximately \$143,321 by using WPCLF dollars at the standard rate of 0.53%, compared to the market rate of 1.78%.

Local Economy

The current Columbus residential sewer bill is approximately \$565/year. Projected residential sewer bills with the implementation of this and other associated wastewater projects are expected to increase to approximately \$711/year, or 1.4% of the median household income (MHI) of Columbus, which is \$49,478.

By using WPCLF financing for this project, Columbus has minimized the economic impact on customers.

Project Schedule

The anticipated loan award will occur in February 2021. Construction will start following loan award and is expected to be completed by the end of the year.

Public Participation

A public notice was posted on the City of Columbus' Public Utilities webpage detailing the proposed construction project. Contact information was provided for any public questions or concerns. Ohio EPA does not oppose the project.

Ohio EPA will make a copy of this document available to the public on its web page: <http://epa.ohio.gov/defa/ofa.aspx> (Under the "What's New" tab, scroll to: "Documents Available for Review and Comment – WPCLF Documents for Review and Comment") and will provide it upon request to interested parties. Information supporting this Limited Environmental Review (LER) is available from the project contact named below.

Conclusion

The proposed project meets the project type criteria for an LER; namely, it is an action for the replacement of existing treatment works. Furthermore, the project meets the other qualifying criteria for an LER; specifically, the proposed project:

- *Has no significant environmental effect, no effect on high value environmental resources, and does not require extensive specific impact mitigation.*

Construction for the project is limited to the previously disturbed footprint of the existing sanitary sewer system within roadways and public rights-of-way containing existing utilities, which lack important environmental features. Standard construction best management practices during construction will be required to control dust, sediment runoff, noise, and maintain safety.

- *Is cost-effective and not controversial.*

The proposed project is cost-effective as it involves seeking replacements to the existing sanitary sewer system to improve the overall wastewater treatment system process and eliminate the \$15,000 annual flushing costs required by the current sewer system in the Brimfield area. DEFA is unaware of any specific opposition to or controversy about this project.

- *Does not create a new, or relocate an existing, discharge to surface or ground waters; will not result in substantial increases in the volume of discharge or the loading of pollutants from an existing source or from new facilities to receiving waters; and will not provide capacity to serve a population substantially greater than the existing population.*

This project involves the replacement of existing sewer lines within the wastewater collection system. The project will not increase wastewater discharges, nor provide capacity to serve a greater population. There will be no change in pollutant loading. Rather, the project will eliminate the number of WIB occurrences due to insufficient wastewater treatment system capacity.

Based upon the available planning information for this project and the materials presented within this LER, Ohio EPA concludes that the proposed project will not result in any significant adverse impacts to any environmental features. The project is expected to have no significant short-term or long-term adverse impacts on the quality of the human environment or on sensitive resources such as surface waters, coastal zones, riparian areas, floodplains, wetlands, state-designated scenic or recreational rivers, prime or unique agricultural lands, aquifer recharge zones, archaeologically or historically significant sites, or threatened or endangered species.

This project will provide improvements to the city's sanitary sewer system to improve efficiency of wastewater collection and treatment and eliminate public health concerns from water-in=basement occurrences.

Contact

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Exhibit 1: Project Location Map

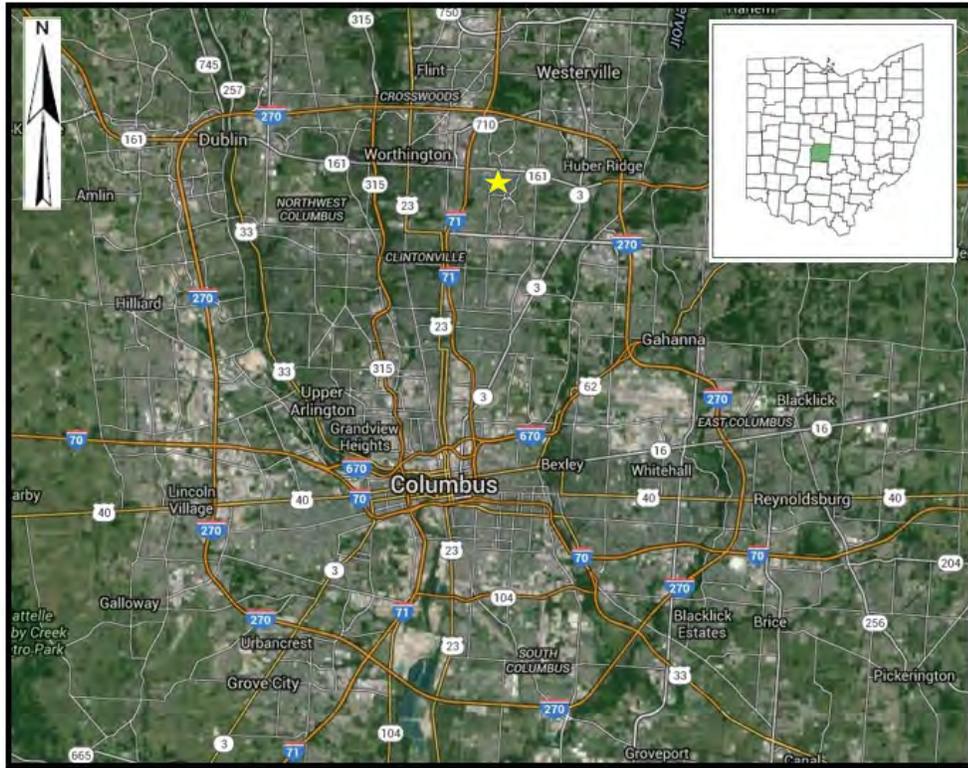


Exhibit 2: Project Location Map

